Breakout Session #4: Other Sediment Surrogates

Session Lead: Jeff Gartner, USGS (jgartner@usgs.gov)
Session Assistant: David S. Mueller, USGS
Note Taker: Gary Wall, USGS

Sessions Focus: Identify and evaluate potential usefulness of selected suspended-sediment-surrogate technologies.

Session Goals/Outcomes:
Define the present status of several sediment surrogate methods (laser optical, acoustic backscatter, pressure differential, and digital optical) for estimating SSC. This should include (but is not limited to) the:

1. Appropriate conditions (size distribution and/or concentration) under which each might be used,
2. Most important limitations and advantages,
3. Possible/probable/potential accuracy if known, and
4. The priority (where appropriate) for potential research for any of the techniques that are not currently widely accepted or used.

Some Guiding Questions for the Breakout Session #4:

1. What is the technology? From whence did it come? Who are Principal Investigators?
2. What property does it measure, and how does it compare to traditional sediment-measurement techniques?
3. Does it measure at-a-point, in part of a x-section, or full x-section?
4. Does it provide other measures, such as flow velocity via particle tracking?
5. What is current status? Is it commercially available?
6. Is it being used to estimate suspended-sediment concentrations, size characteristics?
7. What are the notable problems and limitations?
8. What are realistic goals for this technology?
9. What is an estimate of accuracy in percent when this technology is used to infer suspended-sediment concentrations? For size distributions?
10. What is relation to other sediment monitoring efforts?
11. What are group's recommendations on how to proceed, if at all?

Silver Baron "E", Wednesday, May 1, 8:00 a.m. to 12:00 p.m.

8:00	Welcome, Format, Goals, Products	J. Gartner, USGS
8:20	Practical View on Laser Technology	T. Melis, USGS
8:45	Q/A	
8:50	Practical View on ABS Technology	E. Patino, USGS
9:15	Q/A	
9:20	Practical View of Digital Optics Technology	J. Gray, USGS
9:45	Q/A	

9:50	Practical View on Pressure Differential Tech	Bill Tollner, UGA
10:15	Q/A	
10:20	Break	
10:40	Key points/common threads of practical talks	J. Gartner, USGS
10:50	Panel Discussion	All speakers
11:40	Selection of subgroups, leaders, charge	J. Gartner, USGS
12:00 p.m.	Adjourn, Lunch, Field Trip	
5:00 p.m.	Subgroups convene on own for dinner and discussion	

Plantinum Room, Thursday, May 2, 8:00 a.m. - 12:00 p.m.

8:00	Regroup	J. Gartner
8:10	Laser leader presents issues and recommendations presents preliminary product matrix	Respective leader
8:30	Discussion - entire group	
8:55	ABS leader presents issues and recom-mendations; presents preliminary product matrix	Respective leader
9:15	Discussion	Entire group
9:40	Break	
10:00	Digital Optics leader presents issues and recom-mendations; presents preliminary product matrix	Respective leader
10:20	Discussion	Entire group
10:45	Pressure Diff leader presents issues and recom-mendations; presents preliminary product matrix	Respective leader
11:05	Discussion	Entire group
11:30	Determination of Agreement and Adequacy of Breakout Session results; Wrap-up.	J. Gartner
12:00 p.m.	Lunch; Leaders finish final-session presentation	
1:00-5:00	All attendees reconvene in Grand Exposition C; Reports from 4 Breakout Groups and Wrap up	